

# **Re-thinking Streets**

## **A Challenge of the 21<sup>st</sup> Century**

*Cascadia Sustainable Streets Forum*

*May 13, 2004*

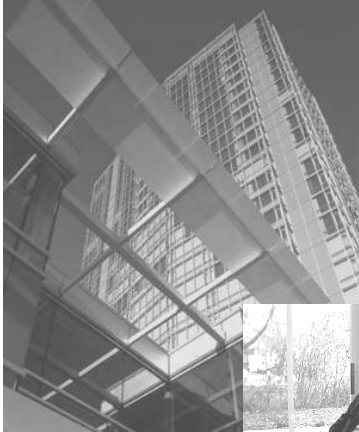
*Seattle*

# Today – A Collective Inquiry

- Forces on our streets in the 21<sup>st</sup> Century
- Multiple Objectives Thinking
- Sustainable Community Corridors



# Changes in our Homes



- Family patterns
  - Uses – live/work
  - Aging in place
  - Community use of public space
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- *The Street is our public living room and means of mobility for all without vehicles*

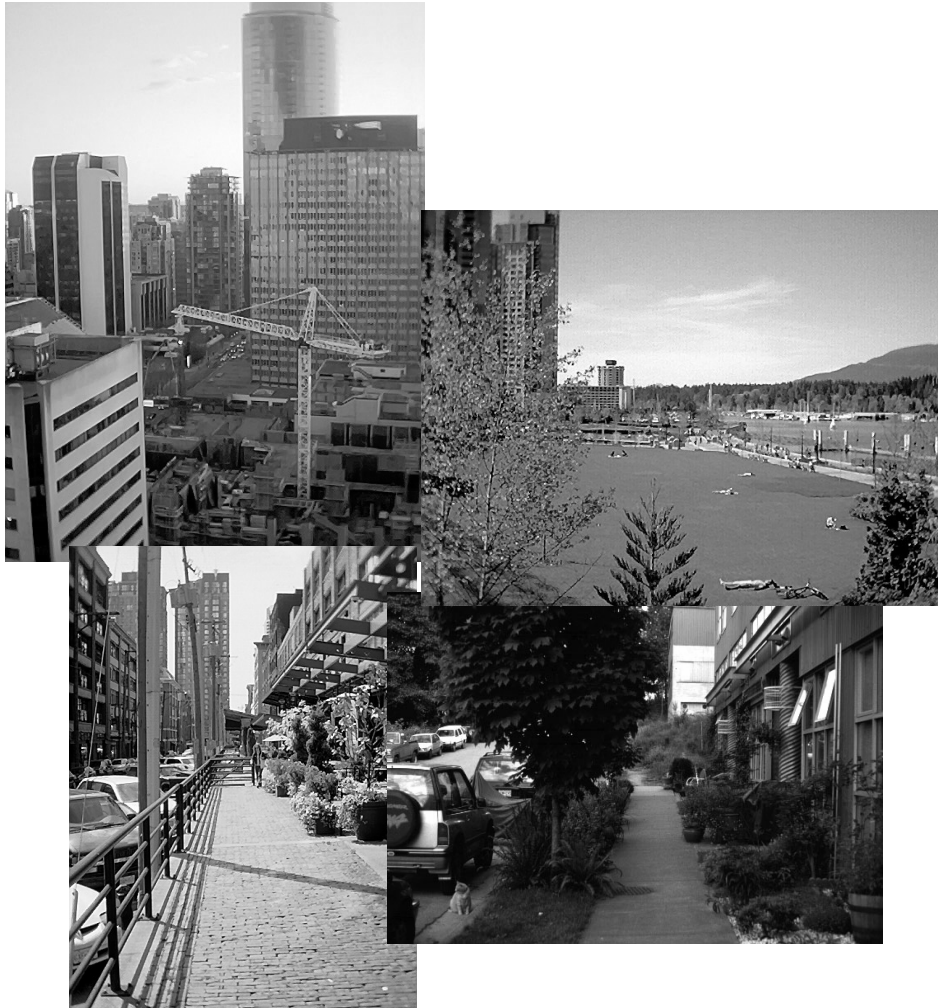
# Changes in Destinations & Timing



- We are traveling to different places at different times
- Where are we going in 2050?
  - Work
  - Leisure and recreation
  - Events



# Increased Population and Densities



- More people in existing neighbourhoods – *a zero sum game for space for the next centuries*
  - More need for streets
  - More need for park space
  - More need for commercial
  - More community space
  - More garden space
  - More need for....

# Increased Demand for Mobility and Modes



- **Expectations to be able to move won't go away**
- **Supply of alternative modes increasing**
- **Convenience will be demanded**

# Increase in Fuel Prices and Changes in Fuels



- It will cost more to move – increased demand for alternatives
- Cleaner fuels, smaller and quieter vehicles
- Other non-fuel modes

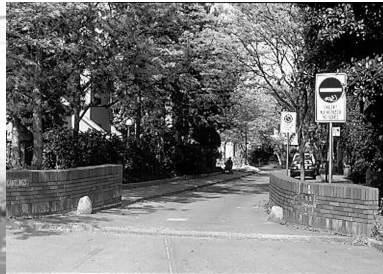


# Increase in Alternative Transportation Technologies



- New vehicles
- Segways
- Scooters
- Electric skateboards
- Electric bikes
- Mini-cars
- Etc..

# Increase in Sensitivities



- **Aesthetics**
- **Air quality / emissions**
- **Noise**
- **Safety**
- **Health**
- **Quality of life**
- **Land value**

# Longer Lives



- **Slower moving folks**
- **More electric scooters**
- **More time and need to socialize and people watch**
- **RVs ?**

# Increased Transit Systems

- **More people, fewer and more expensive vehicles  
= more transit sharing  
the road**
  - Stations
  - Park n rides
  - Buses with bike racks
  - Streetcars
  - Smaller buses and shuttles
  - Etc...



# Increase in Subcultural Diversity



- Demand for diversity in street programming
- Street as “rec-room” for many different types of people
- Streets need to compete with our personal living rooms to be dynamic
  - *Streets as home theatre*
  - *Streets as recliner and stereo system and a good book*
  - *Streets as dining room*



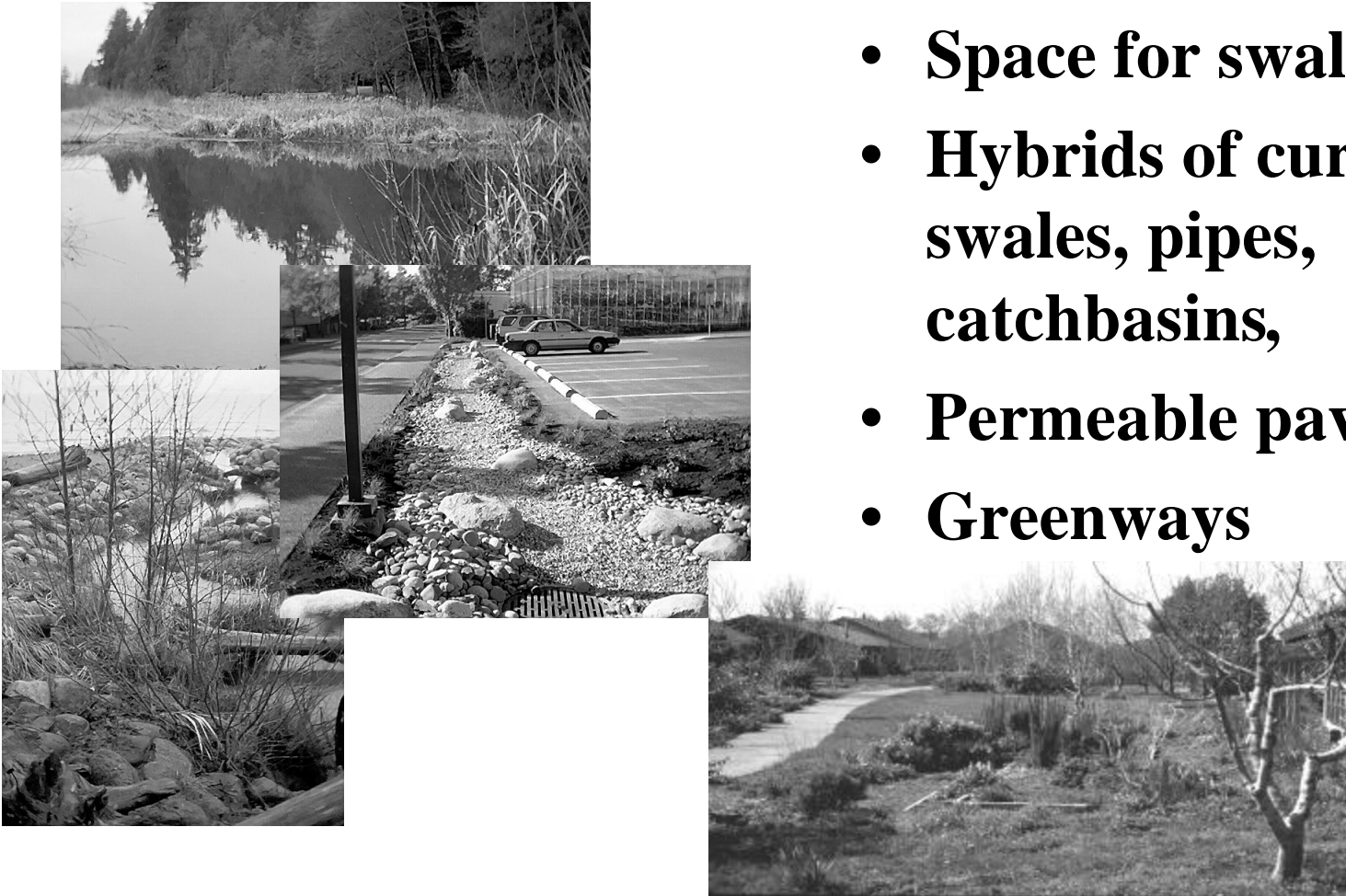
# Increase in Storm Events



- Increased intensity and frequency of cloudbursts and serious floods
- Street trees
- Street as sponge and filter versus pipe

# Surface Runoff Management

- Space for swales
- Hybrids of curbs, swales, pipes, catchbasins,
- Permeable paving
- Greenways



# Changes in Road Materials and Technology



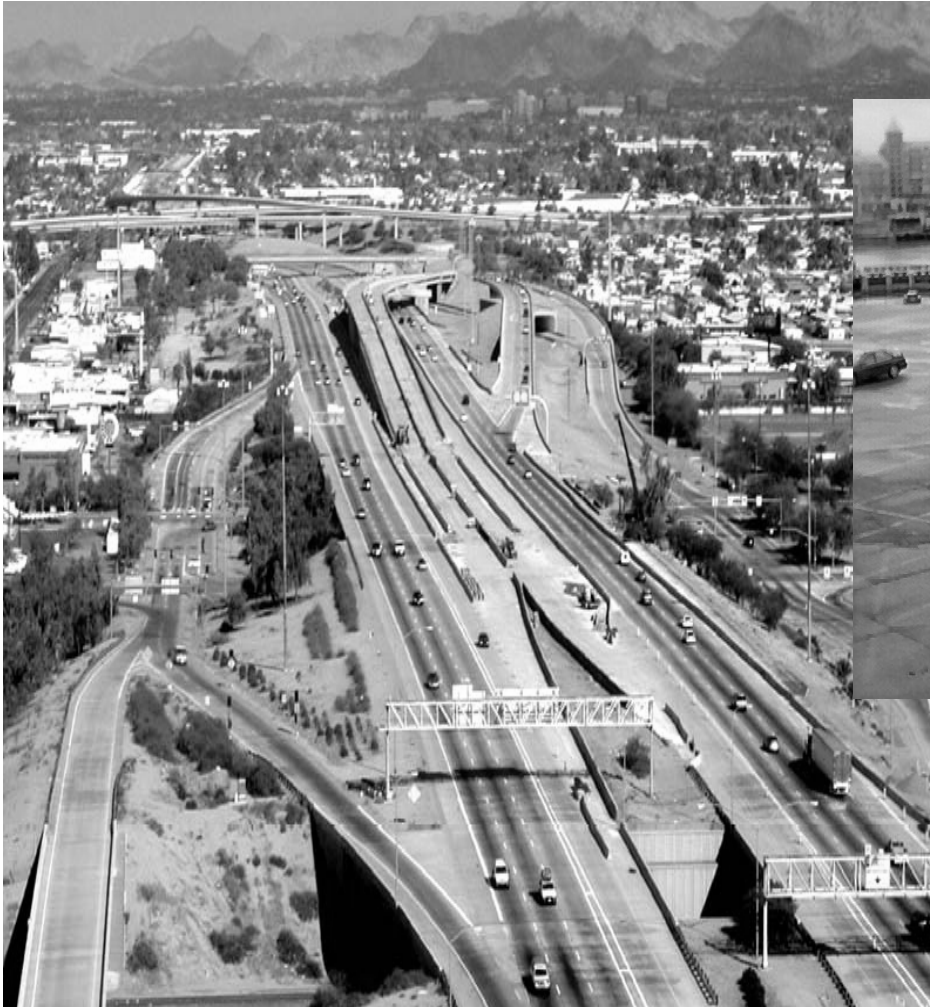
- The price of oil = the price of roads
  - *asphalt / concrete*
- Increased costs in granular subgrade
- Re-useable and re-used road surfaces and subgrades
- Others

# Changes in Infrastructure Technology and Systems



- **Wires – Wireless**
- **Decentralized infrastructure systems**
- **District heating systems**
- **Others**

# Single Objective Thinking



# Multiple Objectives Thinking





# Sustainable Community Corridors



# Forces on Streets in 21<sup>st</sup> Century

